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THE AGRICULTURAL SITUATION

November 1938

A Brief Summary of Economic Conditions

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LOOKING AHEAD into 1939, BAE sees prospects for continued improvement in the demand for farm products, that farmers' cash income from marketings and Government payments will be increased, that farm production expenses will be about the same as in 1938. Net cash income of farm operators is expected to be "materially higher" than in 1938. * * * The domestic demand picture is considered more reassuring than the foreign, with industrial activity and consumer incomes expected to average "substantially higher" next year. Foreign conditions affecting exports and prices of United States farm products may be less favorable. * * * Increased production of livestock and livestock products is expected next year, and possibly decreased production of crops already in large supply. All products will be favorably affected by the improved demand situation, but the increase in farm income is likely to be "more noticeable" in commodities going directly into consumption. * * * Meanwhile, 1938 cash income may exceed the 7.5 billion dollars estimated by BAE last summer.

Commodity Reviews and Outlook

[Including condensations of statements contained in the 1939 Outlook Report of the Bureau of Agricultural Economics]

DEMAND: Improved Outlook

DURING the past year prices and incomes received by farmers have been depressed by a severe business recession in the United States and some foreign countries, and by increased supplies of a number of important commodities. Prospects now are for a somewhat more favorable general demand situation in 1939 than in 1938, with considerable improvement in domestic conditions offsetting less favorable foreign prospects. This will help to offset the effects of large actual and prospective supplies of some farm products.

Improvement in domestic demand in 1939 over 1938 should result from a higher average level of industrial activity and consumer incomes. This outlook is based upon prospects for increased production of automobiles, steel, textiles, and miscellaneous consumers' goods, and an increase in building activity.

General economic conditions in the United States are favorable to the recovery indicated by conditions in these industries. Increased net contributions of the Federal Government to total purchasing power will serve as an important stimulus to business in 1939. An exception to the generally favorable economic situation is the relative weakness in some important commodity prices.

The foreign demand outlook for 1939 is less favorable. Although general economic conditions abroad may show some improvement over this year if there are no further unfavorable political developments, competing foreign supplies will be much larger in 1939 than in 1938. There has also been a general stiffening of foreign trade restrictions against imports of farm products from the United States, but this may be offset to some extent by the possible conclusion of trade

agreements with the United Kingdom and Canada.

In view of the general improvement in business activity which is expected, it seems probable that the general level of wholesale prices in the United States will average somewhat higher in 1939 than in 1938, with higher prices for raw materials more than offsetting possible lower prices for some manufactured goods. Some rise in prices of farm products as a whole may occur. The disparity between prices received and paid by farmers for commodities may be reduced somewhat in 1939.

Cash farm income from the sale of products and Government payments is down about 13 percent in 1938 from 1937, but is higher than in any year from 1930 to 1935. Hopes for at least some improvement in farm income in 1939 seem likely to be realized, the increase coming mainly from relatively perishable commodities which respond more quickly to increases in consumer purchasing power. Income from Government payments in 1939 also is expected to exceed that of 1938. Since any increase in total cash income probably will be accompanied by little change in farm production expenses, the net cash income of farm operators may be materially higher in 1939.

CASH INCOME: Improvement

Cash farm income continues to run below the corresponding months of last year, but the total for 1938 may exceed the 7.5 billion dollars estimated by BAE last summer. Basis is the improvement in demand for farm products, together with Government purchases of surplus farm products, in the last few months of this year.

The increase in the demand for farm products in recent months is reflected by the more than seasonal increase in income from meat animals, dairy prod-

ucts, and fruits and vegetables. The seasonally adjusted index of cash income from meat animals rose from 76.5 in June to 87 in September. Income from dairy products increased from 80.5 percent of the 1924-29 average in June to 86.5 in September.

Cash income from sales of farm products in September was 20 percent larger than in August, but 10 percent less than in September last year. Government payments—larger in September this year than last—made up some of the discrepancy. Income from crop sales was 12 percent smaller this September than last, income from livestock marketings was down 6 percent.

September figures for the last 3 years, and January-September totals are given in the following table:

	Income from marketings	From Government payments	Total
September:			
1938---	\$737,000,000	\$27,000,000	\$764,000,000
1937---	816,000,000	5,000,000	821,000,000
1936---	752,000,000	6,000,000	758,000,000
January-September:			
1938---	5,044,000,000	333,000,000	5,377,000,000
1937---	5,820,000,000	350,000,000	6,170,000,000
1936---	5,222,000,000	210,000,000	5,432,000,000

PRICES: No Change

The general index of prices of farm products was unchanged during the

last month of record, remaining at 95 percent of pre-war, as of October 15. This compares with 112 percent on October 15 a year ago.

Wheat prices dropped during the last month, corn declined, cotton was higher, fruit was lower, dairy products advanced, chickens were down, eggs were sharply higher, and meat animals sold for less money than a month earlier.

The ratio of prices received to prices paid was unchanged at 79 percent of pre-war on October 15, compared with 88 percent on October 15 last year.

Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products ¹
1937			
October-----	112	128	88
November-----	107	127	84
December-----	104	126	83
1938			
January-----	102	126	81
February-----	97	126	77
March-----	96	125	77
April-----	94	125	75
May-----	92	125	74
June-----	92	124	74
July-----	95	123	77
August-----	92	122	75
September-----	95	² 121	78
October-----	95	121	79

¹ Ratio of prices received to prices paid.

² Revised.

Prices of Farm Products

Estimates of average prices received by producers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909-July 1914	October 1909-13	October 1937	September 1938	October 1938	Parity price, October 1938
Cotton, lb.-----cents..	12.4	12.1	8.1	8.2	8.5	15.6
Corn, bu.-----do....	64.2	64.8	58.9	48.0	41.9	80.9
Wheat, bu.-----do....	88.4	88.1	88.7	52.5	52.2	111.4
Hay, ton.-----dollars..	11.87	11.49	8.77	6.70	6.72	14.96
Potatoes, bu.-----cents..	69.7	65.0	48.5	47.8	51.0	86.5
Oats, bu.-----do....	39.9	38.4	28.8	21.8	22.1	50.3
Soybeans, bu.-----do....	(¹)	(²)	85.8	70.6	63.9	-----
Peanuts, lb.-----do....	4.8	4.6	3.2	3.2	3.2	6.0
Beef, cattle, cwt.-----dollars..	5.21	5.09	7.19	6.46	6.33	6.56
Hogs, cwt.-----do....	7.22	7.37	9.78	8.07	7.28	9.10
Chickens, lb.-----cents..	11.4	11.5	17.6	14.3	13.6	14.4
Eggs, doz.-----do....	21.5	23.8	25.2	24.9	27.1	³ 32.2
Butterfat, lb.-----do....	26.3	26.8	35.1	24.1	24.4	³ 33.4
Wool, lb.-----do....	18.3	¹ 18.5	29.2	18.7	19.7	23.1
Veal calves, cwt.-----dollars..	6.75	6.80	8.76	8.31	8.28	8.50
Lambs, cwt.-----do....	5.87	5.35	8.42	6.46	6.37	7.40
Horses, each.-----do....	136.60	134.50	¹ 90.00	81.70	79.90	172.10

¹ Prices not available.

² Revised.

³ Adjusted for seasonality.

WHEAT: Reduced Acreage?

Excessive world supplies continue as a depressing factor in the wheat situation. It is estimated that the present world wheat area of about 285 million acres is approximately 5 percent more than is necessary, with average yields, to produce a crop equal to the 10-year 1927-36 average annual disappearance of about 3,775 million bushels.

Biggest factor in the 1939 outlook for United States wheat farmers is the acreage of winter wheat seeded this fall, and the acreage to be planted next spring. The adjustment allotment for winter and spring wheat is 55 million acres. Average yields on this acreage would produce about 660 million bushels. Since the average domestic disappearance of wheat is about 680 million bushels, the carry-over would be reduced at the close of the next marketing year, and the wheat situation correspondingly improved.

But if seedings for 1939 exceed to any considerable extent 55 million acres, and average yields are obtained, an increase in the already large United States carry-over appears unavoidable. This assumes annual exports of about 100 million bushels. Wheat acreage elsewhere in the world is not likely to be decreased, and even though United States seedings are limited to 55 million acres, average yields would produce a world crop nearly equal to the annual world consumption.

FLAX: Higher Returns

The outlook for flax is for higher per-acre returns than from spring wheat, assuming at least average yields of these grains next season. World supplies of flaxseed for 1938-39 will be only little larger than in 1937-38, whereas world wheat supplies are the largest on record.

United States flax acreage in 1939 probably will be somewhat larger than in 1938 if flaxseed prices continue high relative to wheat prices and if wheat farmers reduce acreage in accordance with adjustment allotments. Domestic demand for flaxseed and flaxseed

products will be somewhat improved next year. Even though farmers should increase flax acreage materially, the production (assuming average yields) would be much below prospective domestic requirements. Little change is likely in the production of oils competing with linseed oil.

COTTON: Record Supply

Latest estimates put the world supply of commercial cotton at about 51.4 million bales. This is 3 percent larger than a year ago, and 29 percent larger than the average of the preceding 10 years. Nineteen thirty-eight is the third consecutive season in which world supplies have climbed to a new high record.

This year's world supply of American cotton is about 25.7 million running bales. This is much larger than the supply a year ago, about one-fifth larger than the 10-year average, and about 2 percent less than the record supply of 1932-33.

Cotton consumption in the United States during the first 2 months of the current season averaged much higher than the average for the 1937-38 season, and stocks of cotton textiles in channels of distribution were smaller than a year earlier. Expected improvement in domestic business conditions and consumer incomes are additional favorable factors.

Offsetting conditions are the reduced cotton consumption in most foreign countries, prospects for little improvement in general economic conditions abroad during the first part of the current season, and increased restrictions on cotton consumption in Japan.

It is expected that an increase in United States consumption of American cotton will about offset the prospective decline in foreign consumption of American cotton this year; that world consumption of foreign cotton also may be about the same as in 1937-38.

The United States supply of cottonseed for the 1938-39 season has been estimated at about 5.8 million tons. This is about one-third less than the

record supply of a year ago, and 4 percent less than the average for the preceding 10 years.

FEED GRAINS: Large Supply

Supplies of all feed grains are larger this year than last, and about the same as the 1928-32 average. The hay supply is the largest since 1927. Livestock numbers have increased slightly, but the number of grain-consuming animal units on January 1 next will be about 8 percent less than the average for the years 1928-32. The supply of feed grains per animal unit will be about the same as for last year, and well above average. The supply of hay per animal unit will be the second largest in 30 years.

Large supplies and relatively low prices of feed grains are expected to encourage continued liberal feeding of livestock, and further increases in production of all kinds of meat animals—especially of hogs and fat cattle—and of dairy and poultry products. This will diminish the supply of feed grains; nevertheless large stocks will be carried over into the 1939-40 marketing year. Prospects are for an increase in total acreage of all feeds in 1939.

BEEF CATTLE: Reduced Slaughter

Total slaughter of cattle and calves in 1939 is expected to be smaller than in 1938, with the reduction chiefly in calves and breeding stock. Steer slaughter is expected to show little change. A small increase in cattle feeding is anticipated.

Cattle slaughtered will be heavier and better finished, but total beef supplies probably will be smaller than in 1938. Price strengthening factors will be the improved consumer demand for meats and the reduction in cattle slaughter; price depressing factors will be the larger supplies of hogs and of all meats.

Continuation of the relatively narrow spread between prices of the upper

and lower grades of slaughter cattle is in prospect. Prices of slaughter cows, especially, may be maintained at a fairly high level relative to prices of other kinds of slaughter cattle.

The number of cattle on farms will be slightly larger next January 1 than last. This is expected to be the first phase of a new cattle production cycle. The rate and extent of the expansion in cattle numbers during the next few years is unpredictable at the present time, but it is considered unlikely that the peak of the cycle will be as high as that in 1934.

Expansion in cattle numbers is expected largely in the Great Plains States where the industry was sharply reduced by the droughts of 1934 and 1936. Some expansion is expected also in States east of the Mississippi River, especially if there is further diversion of land in this area from food and fiber crops to grass and hay production.

HOGS: Larger Supply

Hog slaughter during the current year will be the largest since 1933-34, but about 15 percent smaller than the average of the 10 years prior to the 1934 drought. Average weights of hogs marketed will continue relatively heavy.

Domestic demand for hog products (including both consumer and storage demand) is expected to increase this year; the foreign demand for hog products also may be a little stronger. But the effects of the stronger demand upon hog prices probably will only partially offset the effects of the larger supplies. The spread between prices of light and heavy hogs may be relatively wide this winter.

The 1938 pig crop was about 12 percent larger than in 1937, the increase reflecting primarily the abundant feed supplies produced in 1937 and the low prices of corn in relation to hogs. A further increase is expected in the number of pigs raised in 1939.

The increase in the pig crop next year will be limited somewhat by the

short corn crop in Nebraska, Kansas, and South Dakota. But in 1940—provided the 1939 corn crop is about as large as in the present year and a good crop is harvested in the western Corn Belt—as many pigs may be raised as in the 5 years prior to the 1934 drought.

SHEEP: Increased Production

Sheep numbers are expected to trend upward during the next few years—in the Western States, the native sheep States, and in Texas. This means increased production of wool, but not necessarily an increase in the size of the lamb crop since the lamb crop is affected to a considerable extent by feed supplies and weather conditions during the lambing season. It is unusual to have weather and feed conditions in all of the principal lambing areas as generally favorable as they were last spring. The 1938 lamb crop may not be equalled for several years, even though sheep numbers increase.

The 1938 increase in production of lambs already has been reflected in larger marketings of lambs thus far in the present marketing year, which began last May. Marketings during the remainder of the year, up to May 1, 1939, will depend partly upon the number of lambs fed this fall and winter and upon the number of 1938 lambs carried over for marketing in the late spring and summer of next year. Though feed supplies are abundant in most feeding areas, relatively few feeder lambs had been purchased prior to mid-October. The unfavorable returns from last year's feeding operations have discouraged some feeders.

The number of Texas lambs sold as feeders may be smaller than a year earlier, in view of the current low prices of feeder lambs and prospects for larger returns if such lambs are held until next spring and summer and sold after shearing. But a relatively large number of Texas lambs may be finished on wheat pastures in Texas and Kansas.

TOBACCO: Favorable Outlook

A "rather favorable" outlook for tobacco in 1939 is seen by BAE. Production in 1938 and prospective stocks in 1939 for most types are fairly well in line with anticipated disappearance. Burley production in the last 2 years, however, has been materially above disappearance, and stocks on October 1 next are expected to be large.

Total domestic utilization of tobacco during the coming year is expected to expand moderately, but increases probably will be limited to cigarette and cigar types. Exports from the 1938 crops likely will be somewhat below exports from the 1937 production.

Total stocks of tobaccos as a whole probably will be larger at the beginning of the 1939-40 season due mainly to the substantial increase in the carry-over of Burley. Slight increases in stocks appear probable for flue-cured, dark air-cured, and Maryland. Stocks of fire-cured and cigar types are expected to decline.

PEANUTS: Increased Acreage

A further increase in acreage of peanuts for 1939 is expected to result from the relatively favorable returns to growers this year. Sustaining price factor has been the diversion program of the AAA.

A measure providing for payments for the diversion of peanuts to crushers has been inaugurated for the 1938-39 season. The diversion program enables grower cooperatives to purchase farmers' stock peanuts of various specified types and grades.

The farmer cooperatives may sell either to the trade for edible peanuts or to crushers. The specified prices are materially higher than could be paid by crushers on the basis of present oil and meal prices.

Sales to crushers are expected to be below purchase prices, but the cooperatives will be reimbursed for the differences.

RICE: Record Supply

Supplies of United States rice for the 1938-39 season are expected to exceed last year's record supplies and again provide a large surplus over prospective domestic needs, probable shipments to insular possessions and exports. Good yields on the third largest acreage on record produced a record crop in the southern rice area. California production fell short of the 1937 record crop, but 1938-39 supplies will be well above average.

TRUCK CROPS: Low Priced

The relatively low prices of important truck crops for fresh market shipment in 1938 are expected to result in a slight reduction of total acreage and production for 1939. Acreage and production this year exceeded all previous records.

Smaller acreages of lima beans, beets, cabbage, celery, cucumbers, onions, and tomatoes, but larger acreages of asparagus, snap beans, cantaloups, cauliflower, lettuce, spinach, and watermelons are expected in 1939. The increase in supplies of "frozen vegetables" in 1938 will be an added competitive factor in the first half of 1939.

Growers' prospective-plantings reports indicate substantial increases in acreage of some of the 1938-39 fall and winter vegetables, but these crops—excepting asparagus—comprise a small portion of the total United States acreage and production. Larger acreages of asparagus, snap beans, cabbage, cucumbers, and peppers, but smaller acreages of carrots, cauliflower, celery, and kale are expected.

POTATOES: Acreage Reduction

A decrease of about 8 percent in acreage planted to potatoes in 1939 is expected as a result of relatively low prices during the last 2 years. Average yields on the reduced acreage would produce a crop of about 310 million bushels. The 1938 crop has been estimated at about 373 million bushels. The average for the 10 years 1927-36 was about 370 million

bushels. All potato producing areas are expected to reduce acreage in 1939, but largest reductions will be in the late States.

CANNING CROPS: Carry-over

BAE sees prospects that the total carry-over of processed vegetables at the beginning of the 1939-40 season will be larger than average, and that plantings in 1939 of practically all the important canning crops except tomatoes probably will be substantially reduced.

A 10 percent reduction in the pack of important canned vegetables this year compared with last is indicated by available estimates, but the total supply—production plus carry-over—is only slightly below last year's high record, and is considerably above average.

It is estimated that reductions of about 25 percent in the 1939 plantings of snap beans, about 35 percent in green peas, and 5 to 11 percent in plantings of sweet corn would be required—under average growing conditions—to prevent burdensome supplies in the 1939-40 season.

Producers of canning tomatoes are in relatively better position. An increase of 20 percent in acreage is needed to increase the supply of this commodity to average proportions.

FRUITS: Larger Crops

BAE estimates that the average production of all fruits during the next 5 years probably will be larger than the average for the last 5. During the last 10, downward trends in apple and peach production have been more than offset by increases in grapefruit, oranges, lemons, plums and prunes, pears, apricots, and cherries.

Significant increases are expected in the output of grapefruit, oranges, and lemons, and moderate gains in production of pears, peaches, plums, and prunes. The bearing acreage of grapes is considered as large enough to maintain production on the present high level. A moderate downward trend of

apple production but no material changes in trends of other fruits are expected.

Increasing competition in foreign markets may be expected during the next 5 years, since trends of fruit production are upward in most countries. Many European importing countries are increasing the production of deciduous fruits and improving the quality of these crops.

DAIRYING: Expansion

Indications are that farmers are preparing to increase rapidly the number of milk cows and other cattle. The number of heifers on hand, and the number of heifer calves being saved are more than enough to provide for normal replacements in 1939 and 1940.

Feed and hay supplies per animal unit for the 1938-39 feeding period are the largest in more than a decade; prices of dairy products are relatively high compared with feeds; milk cows probably will be fed liberally this winter.

Milk production this winter is expected to make a new high record, but consumption of milk and cream may be no larger than a year ago. These conditions point to a continued increase in production of manufactured dairy products.

Long-time prospects are for increases in dairy production in practically all regions of the country. Principal increases will be in some of the old established dairy areas where improved practices are being adopted and in some of the newer areas where there have been recent marked upward tendencies in production.

POULTRY AND EGGS: Outlook

The poultry situation is less favorable this fall than last because of the larger marketings, but the egg situation is expected to remain favorable to producers the remainder of this year because of the relatively low cost of feed and the small storage holdings.

In the spring of 1939 the increased consumer incomes will help to offset the effect of increased marketings of poultry, and in the first half of 1939 the egg situation is expected to be favorable to producers because of the feed situation and the favorable outcome of the 1938 storage deal.

Production of broilers will be heavier this fall and winter than last, and production of turkeys has been estimated at nearly 4 percent larger than in 1937. A further increase in production of turkeys is expected in 1939.

Upsurge in Industry Helps Farmers

NATIONAL income recovered almost as much ground in the 3 months from June to September as had been lost in the 5 months from January to June. October figures will probably show that the entire loss during earlier months of 1938 has been canceled.

Industrial production rose 17 percent from June to September—rivaling in intensity the gain in most other recovery periods. Factory employment and pay rolls had expanded far beyond seasonal proportions even before the recent reemployment and

wage restoration programs of the automobile industry were announced.

Construction contracts awarded have been pointing upward for several months, in September the total for all types was almost half again as large as a year earlier. Year-to-year gains in residential building and in public utilities and public works construction were especially large.

The strengthening industrial situation and an expanding nonagricultural income are bolstering farm markets which in some products are contending with near-record supplies.

Farm Exports Affected by Munich Pact

GERMANY'S accession of the Sudetenland has unfavorable implications for American agriculture. The recent territorial changes are expected to decrease the importance of Czechoslovakia as an export outlet for our farm products without compensating gains in exports of those products to Germany.

United States exports to Czechoslovakia in 1937 included more than 200,000 bales of cotton, 9.4 million pounds of dried prunes, 2.3 million pounds of other dried fruit, 2.4 million pounds of lard, and 226 thousand bushels of apples. The taking over by Germany of a large segment of the industrial population of Czechoslovakia will in all likelihood reduce that country's needs for American fruits and livestock products, but the greatest loss is likely to occur in purchases of American cotton.

Under the Munich agreement most of the Czechoslovakian textile industries will accrue to Germany. Ordinarily this would mean that the United States would sell to Germany the cotton formerly used by the Czechoslovakian mills. But under present conditions Germany's scarcity of foreign exchange forces her to obtain cotton under barter or clearing agreements wherever possible. Since such a policy is not conducive to trade with the United States, it must be anticipated that the transfer of Czechoslovakian textile mills to Germany will result in the United States supplying a smaller share of the cotton used by these mills.

A LARGE part of the area accruing to Germany consists of hilly or even mountainous country which is to a considerable extent unsuitable for general agriculture. Grain production and grazing constitute the major agricultural pursuits in this area, but forestry is also important. The major value of the area lies in its mineral resources and its industries.

Under the Munich agreement, Germany obtains nearly all of the

coal mines and a large part of the primary textile, ceramic, chemical, and paper industries. Germany obtains half or more of the industries producing household articles, musical instruments, and certain lines of machine manufacturing. Most of the tobacco factories and flour mills, however, will remain in Czechoslovakia.

A considerable part of the production of the industries accruing to Germany has been for export and to the extent that this condition continues, these industries should be of value to Germany in the expansion of her foreign trade. Germany's primary problem, however, lies in her inability to produce sufficient foodstuffs and raw materials. Acquisition of the Sudetenland will tend to intensify this problem.

The major products of Czechoslovak agriculture are wheat, rye, barley, oats, sugarbeets, tobacco, and hops. Using 1929 census data and an official map of the Sudeten area to be taken over by Germany, as published in Berlin newspapers, it appears that the major loss to Czechoslovak agriculture will be in hops, nearly three-fourths of the area of which lies in the Sudeten area.

Only 18 percent of the wheat area, on the other hand, will be taken over by Germany. About one-third of the rye area and one-fifth of the barley acreage will accrue to Germany. Most of the livestock population will remain in Czechoslovak territory, although a substantial number of dairy cows is in the Sudeten area.

THE conclusion to be drawn from such a rough analysis is that Czechoslovakia will become primarily an agricultural country and that agricultural exports will play an increasingly important part in its economy. Conversely, Czechoslovakia will find it necessary to import lesser quantities of agricultural products, such as cotton, wheat, flour, lard, and fruits, which in the past have been supplied largely by the United States.

D. F. CHRISTY.

The Farmer's Interest in Freight Rates

AGRICULTURE has a vital stake in the level and structure of freight rates. In 1937, for example, the steam railroads of the United States derived 0.6 billion dollars of revenue from the products of agriculture and from livestock and animal products. This was 18 percent of their total freight revenues of 3.5 billion dollars in that year. Farmers also pay annually large, though undetermined, sums to express companies, water lines, and truck carriers for transporting their products. In addition, transportation charges on equipment and supplies purchased by farmers are of significance. The farmer feels the impact of these rates and charges through their effect upon his gross cash income received from farm marketings and upon his costs of production and living.

Farm prices and farm income declined during the past year. On a base of 1910-14 as 100, the index of prices received by farmers fell from 123 in August 1937, to 92 in August 1938. On the same basis, the index of prices paid by farmers for commodities used in living and production declined from 132 to 122. The ratio of prices received to prices paid by farmers dropped from 93 in August 1937, to 75 in August 1938. The receipts from farm marketings during the first 8 months of 1938 totaled 4.3 billion dollars as compared with 5 billion dollars reported for the same months in 1937, a decline of 14 percent. Receipts from crops were down 24 percent and from livestock marketings 6 percent.

DURING this period of declining prices and income freight rates—particularly railroad rates—were increased. For example, the Interstate Commerce Commission approved, in the *Fifteen Percent Case, 1937-38*, Ex Parte No. 123, an increase of 5 percent in freight rates on most agricultural commodities, effective on March 28 of this year. This case dealt with a proposal of the railroads to increase

freight rates by 15 percent. The Secretary of Agriculture appeared before the Commission on January 18, 1938, to present testimony and a comprehensive factual exhibit relating to the then prevailing economic conditions of agriculture and of the bearing thereon of the proposed advance in freight rates.

In his testimony the Secretary emphasized two principal points: (1) that the 15 percent increase would impose serious economic burdens upon agriculture; and (2) that in the long run the increase would be harmful to the carriers because its probable effect would be to reduce the volume of traffic and, therefore, the revenues of the carriers.

As a result of this and similar testimony, the Commission increased the rates on agricultural products generally only 5 percent as contrasted with 10 percent on most other commodities.

Subsequently, the railroads attempted further to raise agricultural freight rates on certain commodities and in certain areas. Cotton rates were advanced during the past summer by substantial amounts in addition to the 5 percent granted last March. The Railway Express Agency, which dominates the express field, is currently endeavoring to raise express rates on farm products by 5 percent on carload shipments and by 10 percent on less-than-carload shipments. These increases would fall most heavily upon the producers of western cherries, southern and western strawberries, and avocados.

THE levels of farm prices and freight rates are compared for specified commodities in the table on page 11.

On all the items except cotton, the freight rates in 1937 were materially higher than in 1913, the base year. The indexes ranged from 101 on cotton to 156 on beef cattle. In every instance these indexes were substantially higher than the indexes of farm prices for identical commodities in

1937. The discrepancies have become greater in recent months owing to the fact that freight rates have recently been increased and farm prices have fallen below the averages for 1937.

Comparison of Indexes of Farm Prices and Freight Rates for Beef Cattle, Sheep, Hogs, Wheat, and Cotton, United States, 1913 and 1937

[1913=100]

Commodity	1913	1937 ¹	
		Farm prices ²	Freight rates ³
Beef cattle.....	100	118	156
Sheep.....	100	98	141
Hogs.....	100	127	145
Wheat.....	100	121	138
Cotton.....	100	67	101

¹ Preliminary.

² Calendar year for beef cattle, sheep, and hogs; year beginning July 1 for wheat; year beginning Aug. 1 for cotton.

³ Year beginning July 1. These indexes are based on rates in effect through Jan. 19, 1933, only. The 5 percent increases authorized by Interstate Commerce Commission, effective Mar. 28, 1933, are therefore not included.

Coming at this juncture, increased rates have cast a doubly heavy burden on agriculture since either the factor of reduced prices or that of increased rates, by itself, has the effect of reducing cash farm income. One important result of this convergence of economic forces has been a resurgence of the farmer's traditional concern over freight rates.

IN addition to his opposition to further increases in rates on farm products, the farmer has renewed his demand for a rationalization of the rate structure with a view of distributing more justly the cost of railroad transportation service among its users. He is also pressing for a more fundamental treatment of the transportation situation than the public has to date been willing to accord to the problem.

With regard to the railroads, the farmer is insisting upon the elimination of costly and wasteful practices, the scaling down of excessive capitalization and fixed charges, and in general the introduction of greater

efficiency and economy in railroad management. The attainment of greater efficiency by these methods would enable the carriers to reduce the level of rates without sacrificing necessary transportation service.

The farmer is also interested in the development of other agencies of transportation which are more efficient and economical for some types of traffic; and is opposed, therefore, to the efforts on the part of certain interests to employ punitive legislation as a means of throttling motor carriers and other forms of transportation.

WHILE substantially all farmers have been affected adversely by increasing freight rates coming during a period of falling farm prices, some producing areas and groups have been more seriously injured than others. Farmers situated long distances from the principal consuming markets in which their products are customarily sold probably have suffered most. (The average railway haul of fresh fruits and vegetables, is about 1,400 miles. The average railway haul of all commodities is 350 miles.) The farm price of a product of a given quality tends to vary according to the transportation rates on shipments to the market.

Since freight rates generally are higher for long than for short distances, any increase in freight rates, particularly if it is a uniform percentage, such as the 5 percent increase of last March, has the effect of lowering the farm price of products distant from market to a greater extent than the farm prices of products close to market. The long-haul shipper suffers not only a greater absolute reduction in his farm price but also a greater relative decline. Consequently, it is the long-haul shipper of farm products who has displayed greatest activity in agitating for lower rates or at least for no increase in existing rates.

THE farmer is desirous of increasing the flexibility of transportation rates. Freight rates, along with long-term interest rates, constitute one of

the most rigid price elements in the national economy. While the proposition that transportation and other production costs tend to be passed on to the consumer has considerable validity in the long run, this does not hold true for individual farmers faced with frequent and often violent fluctuations in prices and income.

The farmer finds that certain producers, such as manufacturers, adjust their production to market conditions in such a way that prices do not fluctuate widely in periods of economic depression. Hence the farmer has difficulty in reducing his operating costs sufficiently at such a time to offset his

reduced income. He finds that his cost of living is not adjusted rapidly enough to offset his declining purchasing power. If it could be effected without sacrificing the necessary transportation service, the farmer would like to have his freight rates fall during periods of recession at least as rapidly as the prices of his products. But he wonders how this objective can be realized as long as the current policy of maintaining "sticky" rate levels and even increasing them when the curve of economic activity and prices dips downward is espoused by the carriers.

RALPH L. DEWEY.

Cattle, Calves Income Increase ¹

FARMERS in 1937 had the largest cash income from cattle and calves in 8 years. The total was 1,217 million dollars. This was more than double the 599 million dollars in 1933, which was the smallest in 30 years of Government record. The largest income on record was 2,029 million in 1918.

Income dropped sharply during the depression of 1930 to 1933, but recovered rapidly as business conditions improved and the consumer demand for meats increased. An important factor in the gain since 1933 has been the relatively short supply of hogs. There

has been a considerable increase in marketings of cattle and calves in the last 5 years. Total commercial slaughter in 1936 was the largest on record.

Government purchases under the drought relief program were an important income factor in 1934 and 1935, strengthening prices of commercial cattle, and paying farmers for many cattle which probably would have died on the farms and ranges. Purchases totaled 102 million dollars in 1934 and represented more than 12 percent of the cash income in that year. In 1935 purchases totaled 9 million dollars.

INCOME from cattle and calves has experienced several rather broad swings in the last 30 years. Income rose sharply from 1914 to 1918 as marketings and prices increased in response to the war-time demand for beef and as a part of the rise in the general level of all prices. From 1919 through 1921 the income from cattle and calves dropped sharply, largely because of the collapse in the abnormal war-time demand. Cattle marketings also decreased sharply.

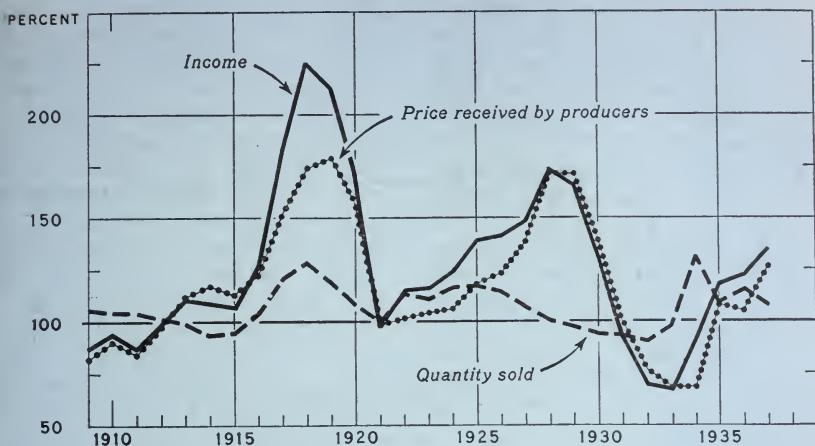
From 1922 through 1928, the income from cattle and calves increased steadily. In the years 1922 through 1926, cattle marketings were increasing but the effect of the increased supplies

¹ Estimates and analytical review by Preston Richards and C. L. Harlan for the Farm Income Committee. The estimates of income are based upon revised estimates of production, marketings, and prices. They include receipts from sales of dairy cattle as well as beef cattle. The income estimates from 1924 through 1935 differ from those previously published by the Bureau of Agricultural Economics, and the estimates for the years 1909 to 1923, inclusive, are a new series.

The 1924-35 estimates differ from the estimates previously published mainly in that purchases of cattle and calves from other States and from public markets for stocker, feeder, and breeding purposes have not been deducted from the receipts from sales and hence from income. The new estimates of cash income, therefore, include gross receipts from sales of all cattle, excluding, however, transfers among farmers in the same State. Feeder and breeding cattle bought will be considered as a general farm expense item and not one to be deducted specifically from the receipts from sales of cattle.

CATTLE AND CALVES: SALES, PRICE, AND INCOME, UNITED STATES, 1909-37

INDEX NUMBERS (1910-14=100)



upon prices was more than offset by the increase in consumer demand, and prices trended upward. In 1927 and 1928 cattle prices advanced greatly because of further improvement in demand and a rather sharp decrease in slaughter supplies of cattle. This rise in price much more than offset the reduction in sales and resulted in a further increase in the income from cattle and calves.

The changes in income from cattle and calves have been brought about to a much greater extent by fluctuations in prices than by the changes in the other component of income—sales. The yearly average price of cattle and calves received by farmers has fluctuated from a high of about \$10.21 in 1919 to a low of about \$3.86 in 1933. On the other hand, the total volume of marketings of cattle and calves has varied between 14.3 billion pounds and 20.8 billion pounds. Thus, prices at the peak were more than two and one-half times as high as at the low point, whereas the peak of marketings was only about 45 percent greater than the low point.

THE relationship between supply and price of cattle during the past 30 years has been somewhat different than for many other agricultural products. Over these years there were three periods when marketings

of cattle and calves (supply) were relatively large: 1916 to 1919, 1922 to 1926, and 1933 to 1937. During each

United States cash and gross farm income from cattle and calves, 1909-37

(Millions of dollars)

Year	Cash income from sales of cattle, calves, beef and veal	Value of cattle and calves slaughtered for home consumption	Gross income from cattle and calves
1909.....	785	29	814
1910.....	851	32	883
1911.....	784	29	813
1912.....	885	32	917
1913.....	999	36	1,036
1914.....	985	37	1,023
1915.....	966	33	999
1916.....	1,132	35	1,167
1917.....	1,651	42	1,693
1918.....	2,029	48	2,077
1919.....	1,921	47	1,968
1920.....	1,528	41	1,569
1921.....	876	27	903
1922.....	1,037	26	1,063
1923.....	1,042	26	1,068
1924.....	1,119	24	1,143
1925.....	1,252	24	1,276
1926.....	1,271	23	1,294
1927.....	1,336	24	1,360
1928.....	1,556	25	1,581
1929.....	1,495	24	1,519
1930.....	1,184	21	1,204
1931.....	838	16	854
1932.....	621	15	635
1933.....	599	14	614
1934.....	815	15	830
1935.....	1,062	21	1,083
1936.....	1,098	21	1,119
1937.....	1,217	23	1,240

of these periods there was a steadily improving demand for cattle and beef and prices of cattle advanced along with the increases in supplies, and the peaks of supplies and of prices were not far apart. On the other hand in the two intervals between these three periods, supplies and prices tended to decline together and the low points of supplies and prices were not far apart. Because of this combination of large supplies and high prices and low supplies and low prices, the fluctuations in income from cattle have been wide and have exceeded fluctuations in either prices or supplies.

In the estimates of amount and value of production of cattle which have been separately published in

recent years, allowance was made for changes in inventory numbers. The number of cattle on farms has varied greatly in the last 30 years. Numbers increase when sales and farm slaughter do not equal production and decrease when sales and farm slaughter exceed production. Any method of evaluating these changes in terms of income is open to criticism. Hence, income from cattle is considered as being realized income—that is, only when cattle are sold or utilized does income result. Changes in inventory numbers of livestock, however, will be considered under a special study of changes in farm wealth.

O. C. STINE,
Chairman, Income Committee.

A Hundred Million for Cottonseed

COTTON farmers this season will sell more than 100 million dollars worth of cottonseed. Production has been estimated at about 5.4 million tons, of which about 4.2 million will be bought by crushers for the production of linters, oil, cake, meal, and hulls. Nothing will be wasted. And as the mechanical processes for handling and crushing seed have been improved, there is increasing interest now in improving the cottonseed marketing system.

A comparatively few years ago, all seed was bought by the crushing mills on an "as is" basis. Little was known then of differences in quality of seed. Producers bartered their seed for the cost of ginning and baling the lint, and the ginners and other buyers in turn offered the seed to the highest cash bidding oil mills. Speculative competition was rife; "business mortality" among oil mills was high.

Today, some order has come out of this chaos, attributable largely to the increasing use of standard grades for cottonseed and cotton linters. This season, 234 out of a total of 463 crushing mills in the Cotton Belt are buying seed on a graded basis, using

the numerical grades which have been developed by the Bureau of Agricultural Economics. It is estimated that about 75 percent of the cottonseed crushed by mills east of Texas and Oklahoma will be bought on grade this year.

In operation, the seed is sampled by Government licensed and bonded samplers, as it is received at the crushing mills, and the samples are analyzed by Government licensed chemists. The mills receive reports of the grade determinations and settle with the ginners and other sellers on that basis. Studies of prices indicate that premiums being paid by the mills for high quality seed are being passed back to the growers.

LAST season, practically all of the oil mills in the Mississippi Valley bought cottonseed on grade. This year, at the request of producers, ginners, and crushers the service has been extended to cover all the eastern cotton-producing States. There are now approximately 338 licensed cotton seed samplers and 20 licensed independent chemists.

A weekly cottonseed market news service is operated in conjunction with

the grading service, so that all branches of the industry—producers to crushers—may know the prices being paid by the mills for the various grades of cottonseed, and the prices being paid to producers by the ginners and seed buyers. Prices of cottonseed products—oil, meal, hulls, and linters—also are reported. The range of grades and the average grade of current sales of seed together with the prices for seed are reported by counties.

The Weekly Cottonseed Review, issued every Saturday from branch offices at Memphis and Atlanta, is distributed to a mailing list of 15,000 producers, ginners, crushers, newspapers, and radio stations. It is posted on local bulletin boards, widely quoted in the daily and weekly country and city newspapers in the South, and broadcast by the radio stations.

G. S. MELOY.

America Drinks its Fruit

DURING the fiscal year 1937-38 the American people probably drank 80 million gallons of canned fruit juices, not including sizable but indeterminant quantities of sweet apple cider, more than 50 million gallons of canned tomato juice, and about 60 million gallons of wine made from grapes produced in this country.

Prior to 1929 grape juice and sweet apple cider were the only unfermented fruit juices consumed in significant quantities. In the last decade, grapefruit juice, pineapple juice, orange juice, and tomato juice have become increasingly popular and consumption of these juices has mounted rapidly. Also, during the last few years canned lemon juice and various fruit nectars have been placed on the market in considerable quantities.

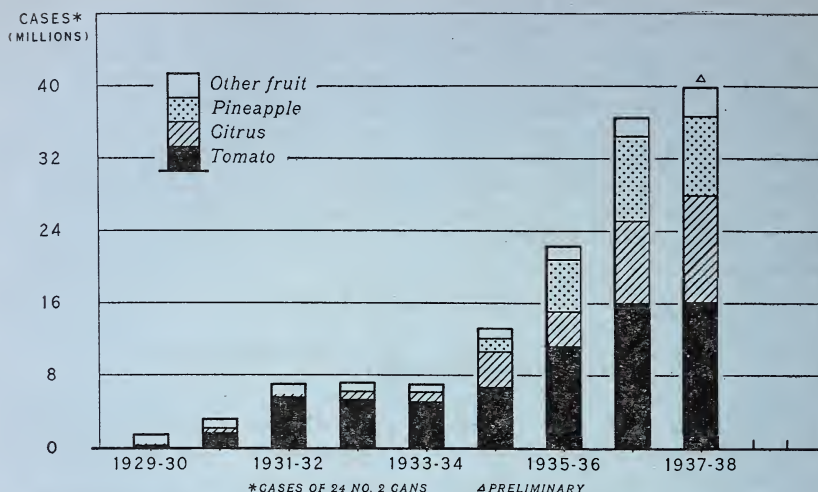
Since the carry-over of canned juices has not been large from one season to the next, statistics on the pack each season are indicative of consumption. In the 1929-30 season the pack of fruit juices (excluding apple cider) amounted to only a little more than 1 million cases, unfermented grape juice making up more than 80 percent of the total. In the same season the pack of tomato juice was only 220 thousand cases. By 1937-38 the fruit juice pack had grown to nearly 24 million cases and the tomato juice pack to more than 16 million cases. (See accompanying chart.)

CITRUS juices comprised about one-half of the record 1937-38 fruit juice pack, with grapefruit juice making up about three-quarters of the citrus juice pack. The domestic pack of canned grapefruit juice increased from 174 thousand cases in 1929-30 to 8.8 million cases in 1937-38. The pack of orange juice rose from 38 thousand cases to 1.7 million cases in the same period. Although the growth in citrus juice output has been continuous since 1929-30, the largest increases have occurred since 1933-34, jumping from 1 million cases in that season to nearly 12 million cases in 1937-38.

Pineapple juice was practically unheard of in this country prior to 1933-34. In that season only 1 thousand cases were received from Hawaii. The following season saw receipts of pineapple juice jump to 1.6 million cases. In 1936-37 receipts reached the record of 9.4 million cases, but declined to 8.8 million in 1937-38. In the latter season receipts of pineapple juice made up more than one-third of the total supplies of canned fruit juices.

In 1929-30 grape juice comprised more than four-fifths of the total pack of fruit juices. Although accurate statistics are not available for earlier years, it appears that for a number of years prior to 1929-30 the pack of grape juice had been about as large as in that season. Since then no material increase occurred in the output of

FRUIT AND TOMATO JUICES: UNITED STATES PACKS AND RECEIPTS FROM HAWAII AND PUERTO RICO, 1929-37



grape juice until 1935-36. In 1937-38 the pack of grape juice was the largest on record, about double the 1929-30 pack, but it made up less than one-tenth of the total fruit juice pack.

IN the last few years juices made from dried prunes, loganberries, cherries, raspberries, and strawberries, and nectars made from apricots, peaches, pears, and fresh prunes have been produced in increasing quantities. Although the output of these products is still relatively small (combined total only 5 percent of total fruit juice pack in 1937-38), expansion during the last few years has been at a rapid rate.

Apple cider has been consumed in considerable quantities for many years. Since the bulk of this product is made on farms, and largely sold from roadside stands, it is practically impossible to make an estimate of actual production or consumption. Accordingly, this important product has not been included in the estimates of the commercial pack of fruit juices. Apple cider as produced on most farms is a purely seasonal product which must be marketed soon after it is made. In recent years efforts have been made to improve the quality and appearance of unfermented apple juice, or sweet cider, and give it keeping qualities

which will extend its marketing season. Accordingly, there has been some commercial production in the last few years of flash-pasteurized and germ-filtered apple juices which gives promise of increasing the utilization of apples in the form of juice.

The production of tomato juice was insignificant prior to 1929. In that year the canned pack was only 220 thousand cases. By 1931 the pack had jumped to 5.6 million cases and it stayed near that level for the next 3 years. In 1935 more than 11 million cases of tomato juice were packed and in both 1936 and 1937 the pack exceeded 16 million cases.

THE increased production of juices is traceable primarily to two factors. First, increased consumer demand for juice products, probably due largely to a general appreciation of their convenience for use as breakfast fruits, dinner cocktails, and in mixed alcoholic drinks. Second, increased supplies of fruits resulting in the necessity of increased diversion of fruit from the fresh market to by-product use.

In the case of most fruits, with the notable exception of pineapples, both of these factors appear to have been important in causing the sharp increase in juice production.

Disadvantaged Classes in American Agriculture

IF an attempt is made to measure the status of American agriculture in terms of the welfare of the people who live on farms, some interesting things are revealed and some definite relationships between physical, economic, and social conditions are discovered. The concept of a standard of living is not capable of complete quantitative statement, but various indices of the standard of living are sufficiently exact to make it possible to draw trustworthy conclusions concerning the comparative status of different segments of the population and differences between geographic areas of the Nation. There is no definitely established quantitative measure of human welfare, but like individual physical well-being or health, the status of welfare is quite often most clearly revealed by a diagnosis of maladjustments. Recently, considerable work has been done in this field of diagnosis. Some of the results are presented here.

The number and percentage of farm families on relief during the depression, or of farm families requiring rehabilitation loans or grants is a pretty direct cue to the weak spots in American agriculture in terms of human welfare. It is a recognized and fairly well demonstrated fact that farm families living on submarginal land are severely handicapped; that farm laborers do in fact as well as in theory stand at the bottom of the agricultural ladder in both economic and social status; that farm tenants, especially sharecroppers, are underprivileged in many ways; that farm families with exceedingly low income must deny themselves many things which a decent standard of living requires; and that hundreds of thousands of farm families are changing residence each year in search of greater economic and social opportunities.

DATA on a Nation-wide basis are of course not available from any source other than the 1930 and 1935

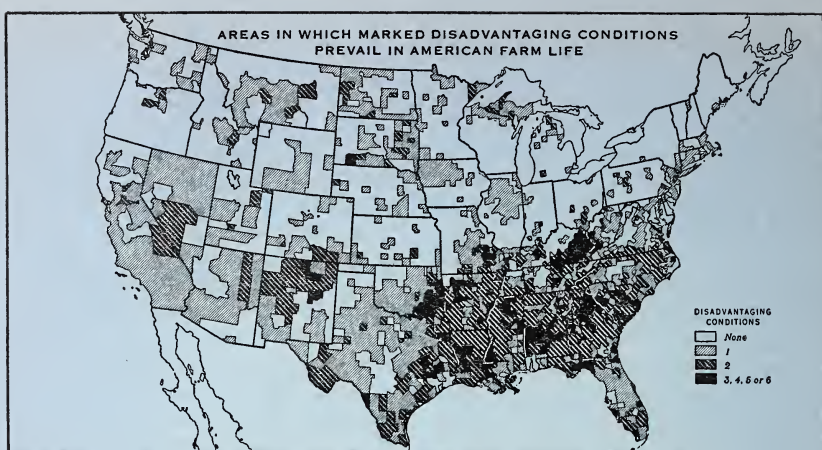
Censuses, and it is probably universally accepted that the conditions described here have become worse since 1929 and 1934. But here are some of the facts for those dates.

There were in 1929, 1,700,000 farms in the United States which yielded a gross farm income of less than \$600. This gross income included the value of all products sold, traded, or used, and included, of course money expended in the operation of the farm, money or commodities paid in rent, and in fact everything that the farm family had to spend for operating the farm and for family living except income from other than farm sources.

There were approximately 7,700,000 men, women, and children living on these low income farms. There were in this same year approximately 2,700,000 hired farm laborers. There were in 1935, 2,865,000 tenant farms upon which were living approximately 13,000,000 persons. Seven hundred thousand were sharecropper farms. According to best estimates, there are nearly 1,000,000 farm families in the United States living on lands that are so poor or on farms that are so small that it is impossible for them to make a decent living.

More than 1,000,000 farm families move each year from one farm to another, and approximately 3,000,000 persons move from farms to towns and cities or from towns and cities to farms, shifting about apparently in search of better opportunities or to escape from circumstances and conditions which are unsatisfactory to them.

When the depression was at its depth, there were more than 1,000,000 farm families on relief of one kind or another, and according to the best estimates available, there have been something like 3,500,000 farm families on relief or rehabilitation at some time during the depression. The location and concentration of these disadvantaged families serves to show where the



sore spots in American agriculture are as measured in terms of the lives and conditions of the people who live on the farms.

IN completing the picture of what might be called the sore spots or troubled areas in American agriculture, a combining of the 7 factors or conditions upon which data have just been given serves to locate such areas quite specifically. There are, for instance, 769 counties in the United States in which 50 percent or more of the farm families are subjected to the influence of 2 or more of these conditions. That is, they are either low income farm families, farm laborers, tenants, those living on poor land, those who were on relief during the depression, those living in areas of severe migration, or living on extremely low standards of living. There are 240 counties in which 3 or more of these disadvantaging conditions or factors prevail. Of the 769 counties with 2 or more disadvantaging factors or conditions, 667 counties, or 86.7 percent, are in 13 Southern States, located in either the Appalachian-Ozark Highlands or in the heart of the intensive Cotton Belt.

The South, however, does not have

a monopoly upon such conditions. Large spots appear on the map in northern New Mexico, certain sections of Nevada and California, portions of the Lake States Cut-Over and of the drought areas of the Great Plains. The 240 counties with 3 or more such disadvantaging conditions are concentrated in about the same localities or regions just named. The vast majority of them are in the Cotton Belt and the southern mountains, but there are a few counties scattered in the drought area and in the upper Rio Grande basin in New Mexico.

The rural slums of the Nation exist in the geographic areas represented by the black and near-black spots on the accompanying map. In these areas approximately one-third of our farm population lives. These areas were not reduced to poverty solely by the recent depression, although it was here that the greatest percentage of the people succumbed to the conditions of the depression and felt their impact first and most severely. These black spots have been and still are the chronic weak spots in American rural life.

CARL W. TAYLOR AND
HELEN W. WHEELER.

Not much change is expected in the average farm-wage rate in 1939, but farmers probably will be able to buy

farm machinery, automobiles, fertilizer, feed, and seed at slightly lower prices.

Nuts—Twenty Million Dollar Industry

UNITED STATES production of tree nuts—English walnuts, almonds, pecans, and filberts—is a 20 million dollar industry. Production has practically doubled in the last 20 years, replacing a large volume of nuts formerly imported, and is expected to continue to increase in the next 5 years as bearing acreage increases.

Combined 1938 production of walnuts, almonds, pecans, and filberts has been estimated at about 84 thousand tons. This is 30 percent less than the 1937 crop, and 6 percent under the average for the 5 years 1932–36. Largest production on record was 120 thousand tons in 1937. In the last 10 years the production of wild and seedling pecans increased from an average of 22,400 tons to 24,400 tons; production of almonds increased from an average of 10,900 tons to 12,100 tons; English walnuts, from an average of 31,200 tons to 47,300 tons; and improved varieties of pecans from an average of 5,700 tons to 9,500 tons. Oregon filbert production increased from 60 tons in 1927 to 2,200 tons in 1937.

Bearing acreages of English walnuts, improved pecans, almonds, and filberts are expected to increase during the next 5 years, but little change is expected in the bearing acreage of wild and seedling pecans. There is a high percentage of young walnut and filbert trees, which will increase in productivity as they grow older. A combined crop of more than 100,000 tons of nuts is expected to occur frequently in the next few years.

TREE nuts were first planted on a commercial scale in the United States when almond and English walnut orchards were set out in California in the 1860's. Soon after the Civil War wild pecans began to be shipped northward out of Louisiana and Texas. This movement grew into a systematic and large-scale trade. The highest qualities of these nuts brought fancy

prices. This resulted in the planting of many pecan orchards in the South, and the development of improved varieties. Production of improved varieties, in average years, now represents about 28 percent of total pecan production.

Pecans, English walnuts, and almonds have long been the leading domestically produced nuts. In the 1920's, filberts were found to be a profitable crop in Washington and Oregon. During the last 10 years there has been a rapid expansion in the acreage of filberts in these two States. Black walnuts, like pecans, are native to the United States. They enter into the channels of trade, but have never been grown as a commercial crop.

In 1930 and 1931 prices to growers for all of the domestically-produced nuts dropped to around half their pre-1929 level. Since then, only almonds have made any substantial recovery. Ten years ago, improved varieties of pecans brought the highest returns to growers, English walnuts were next, and almonds last. These price relationships have changed. In recent years almonds have been highest in price (the crop was unusually small in 1934, 1935, and 1936), averaging 16 cents per pound to growers. Improved pecans have averaged 13 cents per pound and walnuts, 10 cents.

CONSUMPTION trends also have changed. Almond and filbert consumption has been decreasing sharply since the early 1920's. The average apparent consumption of almonds in the period 1919–23 was 14,000 tons, or 0.26 pound per capita, annually. In the period 1935–37 it was only 7,800 tons, or 0.12 pound per capita. Average apparent consumption of filberts in 1919–23 was 11,700 tons, or 0.11 pound per capita, but in 1935–37, only 2,400 tons, or 0.04 pound per capita.

Walnuts were apparently consumed in increasing quantities up to 1925 or

1926, but a decline then set in. Per-capita consumption averaged 0.46 pound in the period 1925-29, as compared to 0.34 pound in 1935-37. The tonnage figures are 27,400 and 21,800, respectively. (These consumption figures are on the shelled basis, with figures on production and on imports in the shell converted to their equivalents in terms of nut meats.)

The declining trend in filbert consumption raises a serious question for the filbert industry. It is possible that by 1945 a crop of 5,000 tons or more of filberts will be produced in Oregon. For the period 1935-37 apparent United States filbert consumption averaged 5,350 tons (unshelled basis).

FIFTEEN or 20 years ago, walnuts, almonds, and filberts were the leading imported nuts. They were consumed in larger quantities than domestic walnuts, almonds, and filberts. Now they are of relatively minor importance. Cashews have become the most important imported nuts. But despite the great increase in imports of cashews, total imports of all tree nuts have declined 23 percent during this period—from 48,700 tons to 37,400 tons (shelled basis). Imports formerly were two-thirds of the total consumption of tree nuts in the United States; now they are only one-half.

A feature of the situation is the rapid increase in consumption of imported

cashews in recent years. Cashew nuts are produced in the West Indies, Brazil, India, and East Africa, but nearly 99 percent of the imports into the United States come from India. Until the middle 1920's cashews moved only in limited quantities in international trade, because no satisfactory process had been discovered for removing the shell around the edible kernel. The shell contains an oil highly injurious to the skin. Then a practical method of removing the shell was developed in India, and factories for roasting and shelling the nuts were established.

A strong demand for cashews was found in the United States, and as the output in India expanded, consumption increased by leaps and bounds. Nuts had to be imported from East Africa into India to meet the demand for shelling for the United States market. Recently, cashew nuts have also begun to find their way into European markets in larger volume.

In the last three seasons, from October 1935 through September 1938, the apparent consumption of cashew nuts in the United States has averaged 12,200 tons, or 0.19 pound per capita, annually. This compares with 0.34 pound per capita for walnuts, 0.22 pound for pecans, 0.12 pound for Brazil nuts, and 0.12 pound for almonds. (Shelled basis.)

EDGAR L. BURTIS.

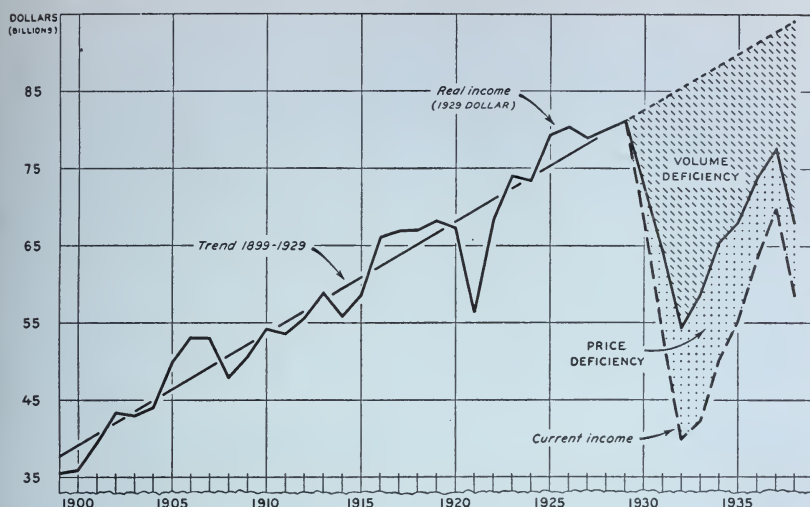
The Deficiency in National and Farm Income

FARMERS as a group would now have a 16 percent better standard of living if the national income had continued to expand after 1929 at a normal rate. Prior to 1930 the national income expressed in physical goods increased at an annual rate of about 1.5 billion dollars. The 1929 national income produced, taken at 81 billion dollars, would have grown to about 94 billions in 1938 had domes-

tic and foreign trade expanded evenly and prices remained at the 1929 level, and farmers would have shared in this greater purchasing power in the hands of domestic consumers.

The course of the national income exclusive of price changes is shown in the accompanying chart and table 1. In 1899 the national income in actual dollars amounted to about 15 billion dollars and ultimately reached 81

DEFICIENCY IN NATIONAL INCOME PRODUCED, UNITED STATES, 1930-38



billions in 1929. During this period, however, prices in general more than doubled. At 1929 prices, the actual income of 1899 would be equivalent to about 35.5 billion dollars. The difference between the 1899 and the 1929 incomes represents an annual increase of about 1.5 billion dollars. In 1905, 1906, 1916, and 1925 this rate was greatly exceeded. Sharp losses occurred in 1908 and 1921, but on the whole the 30-year period may be described by a line of uniform annual increase as approximating normal.

THE unmistakable nature of the trend in the national income from 1899 to 1929 gives a basis for measuring the deficiency in national purchasing power since 1929. The difference between the actual income and what it might have been at 1929 prices is an over-all measure of deficiency in national income produced, due to both volume and prices. The difference between the actual income and income adjusted for price changes naturally indicates the deficiency due to prices. According to the computations in table 2, the actual national income in 1938 is estimated at 59 billion dollars or 36 billion dollars below the long-time trend. Had prices in 1938 been at the 1929 level, the same volume of income produced

in 1938 would have had a value of 68 billions, and the shortage would have been 26 billion dollars instead of 36.

Table 1.—National Income Produced in Current and in 1929 Dollars, United States, 1899-1938

	National income current dollars ¹ (billions)	Prices ² (per cent of 1929)	National income at 1929 prices (billion dollars)
1899.....	15.2	43.0	35.5
1904.....	21.1	48.0	44.0
1909.....	26.6	52.5	50.6
1914.....	31.3	55.9	55.9
1919.....	65.9	96.6	68.2
1924.....	68.0	92.7	73.4
1929.....	81.1	100.0	81.1
1932.....	40.0	73.7	54.3
1937.....	69.8	89.9	77.6
1938 (prelim.).....	58.5	86.0	68.0

¹ 1929-37: U. S. Department of Commerce; 1899-1928: National Industrial Conference Board estimates reduced by 2.3 percent, the 1929 difference between that series and the U. S. Department of Commerce estimate.

² Index of general prices, Federal Reserve Bank of New York

FOR the entire period, 1930-38, the sum of the annual deficiencies in income comes to a total of 294 billion dollars. Exclusive of price changes, the cumulative total of deficiencies is 193 billions. About one-third of the total deficiency may thus be attributed to lower prices and two-thirds to lower volume. It should be observed that the differen-

Table 2.—Deficiency in National Income Produced From 1930–38 inclusive

[Billion dollars]

	National income produced ¹	National income trend ²	Deficiency of real income ³		Actual estimated national income ⁴	Deficiency in actual income ⁵	
			Annual	Cumulative		Annual	Cumulative
	(Basis 1929 price level)		(Basis 1929 prices)				
1930.....	72.7	82.6	9.9	9.9	68.3	14.3	14.3
1931.....	64.2	84.0	19.8	29.7	53.8	30.2	44.5
1932.....	54.3	85.5	31.2	60.9	40.0	45.5	90.0
1933.....	58.7	86.9	28.2	89.1	42.3	44.6	134.6
1934.....	65.5	88.4	22.9	112.0	50.1	38.3	172.9
1935.....	68.1	89.8	21.7	133.7	55.2	34.6	207.5
1936.....	73.8	91.3	17.5	151.2	63.5	27.8	235.3
1937.....	77.6	92.7	15.1	166.3	69.8	22.9	258.2
1938 (prelim.).....	68.0	94.2	26.2	192.5	58.5	35.7	293.9

¹ Department of Commerce estimates, except 1938, adjusted by the Federal Reserve Bank of New York Index of General Prices.

² The trend from 1899–1929 extended.

³ The deficiency of income in 1929 dollars from the estimated trend.

⁴ Department of Commerce estimates, except 1938.

⁵ The deficiency in income in current dollars from the estimated trend. The greater deficiency in current than in real income is due to lower prices than those of 1929.

tiation between price and volume is not as real as it looks. Had there been no lowering of prices there might not have been a decline in volume, and had there been no decline in volume there would not have been as great a decline in prices.

The important fact is the shrinkage in national income in terms of goods, and this has been very large. In 1938 the volume of goods and services produced, constituting the national income, should have been 38 percent greater to have been in line with the

trend. The average annual deficit for the period 1930–38 has been equal to about 25 percent of the 1929 income.

THE deficit in gross farm income from farm production may also be computed from these national income data by utilizing the long-time relationship that seems to have existed between these two sets of income estimates. As shown in table 3, the upward trend in the national income from 1929 to 1938 would have sustained a rising trend in farm income. By 1938 gross

Table 3.—Deficiency in Gross Farm Income in United States, 1930–38

[Billion dollars]

	Trend in national income (1929 prices)	Trend in gross farm income ¹	Gross farm income	Gross farm income at 1929 prices ²	Deficiency at current prices		Deficiency at 1929 prices	
					Annual	Cumulative	Annual	Cumulative
1930.....	82.6	11.7	9.8	10.4	1.9	1.9	1.3	1.3
1931.....	84.1	11.8	7.0	8.7	4.8	6.7	3.1	4.4
1932.....	85.6	11.8	5.3	7.6	6.5	13.2	4.2	8.6
1933.....	87.1	11.9	6.1	8.7	5.8	19.0	3.2	11.8
1934.....	88.6	12.0	7.4	9.2	4.6	23.6	2.8	14.6
1935.....	90.1	12.2	8.4	10.3	3.8	27.4	1.9	16.5
1936.....	91.6	12.3	9.3	11.5	3.0	30.4	.8	17.3
1937.....	93.1	12.4	10.0	11.7	2.4	32.8	.7	18.0
1938 (prelim.).....	94.6	12.5	8.8	10.8	3.7	36.5	1.7	19.7

¹ Based on trend in ratios of gross farm income to national income, 1930, 14.2; 1931, 14.0; 1932, 13.8; and reduced annually by 0.10 to 13.2 for 1938.

² Gross farm income adjusted for changes in prices paid by farmers.

income might have reached 12.5 billion dollars instead of the actual 8.8 billions estimated for 1938.

This deficit of 3.7 billion dollars added to the similar deficits for the previous years gives us a total shortage of 36.5 billion dollars, but if correction is made for the lower level of prices paid by farmers for goods they buy, the shortage in 1938 amounts to only 1.7 billion dollars and for the entire period 19.7 billion dollars. Nearly one-half of the farm income shortage may thus be attributed to lower prices compared with one-third for national income as a whole. Had the 1938 farm income been normal, according to the standard used here, farmers would have been able to exchange that income for about 16 percent more goods than they are now able to do.

THE long-time record of the national income from 1900 to date is indicative not only of our recent deficits but of what our goals are to be in the use of our industrial resources. Farm production is now at a high level and enormous surpluses of cotton and wheat exist far in excess of normal domestic requirements. The deficit national income is chiefly in industrial

production and industrial employment.

If we are to have a national income in line with that of 1929 at 1929 prices we would of course need a substantial increase in production and a rise in both agricultural and industrial prices. If, however, we are to have a national income in line with that of 1929 at present prices, we need an increase in industrial production of probably around 40 percent above the present level and much more than that for full industrial employment. Such an increase in industrial production might conceivably take place without any increase in prices in general, just as the increase between 1923 and 1929 took place without an increase in the average of commodity prices. In that period an increase in agricultural prices was offset by a declining level of industrial prices.

Were a similar development to take place, farmers, as well as consumers in the cities, would enjoy an increasing standard of living partly through an increase in money incomes and partly through a lowering of prices of industrial products in line with increasing industrial efficiency.

L. H. BEAN.

Measures of Domestic Demand

[1924-29=100]

	September				Percent change		
	1929	1933	1937	1938	1937-38	1933-38	1929-38
National income.....	109.1	64.7	96.1	88.6	-8	+37	-19
Nonagricultural income:							
Total.....	109.9	66.1	96.9	89.7	-7	+36	-18
Per capita.....	104.2	61.0	86.3	79.3	-8	+30	-24
Factory pay rolls:							
Total.....	110.7	59.4	101.0	78.1	-23	+31	-29
Per employed wage earner.....	103.7	72.1	94.7	90.2	-5	+25	-13
Industrial production:							
Total.....	113.3	78.6	103.9	84.3	-19	+7	-26
Factories processing farm products.....	107.0	99.7	98.4	102.5	+4	+3	-4
Other factory production.....	116.0	67.1	105.5	74.3	-30	+11	-36
Construction activity:							
Contracts awarded, total.....	90.9	24.8	46.3	62.8	+36	+153	-31
Contracts awarded, residential.....	65.4	10.7	33.1	49.3	+49	+361	-25
Employment in production of building materials.....	94.4	44.1	69.4	57.3	-17	+30	-39
Cost of living:							
Food.....	104.0	69.3	82.6	75.8	-8	+9	-27
All other items.....	97.9	83.1	85.5	85.8	(1)	+3	-12
Purchasing power of nonagricultural income per capita:							
For food.....	100.2	88.0	104.5	104.6	(1)	+19	+4
For "All other items".....	106.4	73.4	100.9	92.4	-8	+26	-13

¹ Less than ½ of 1 percent.

NOTE.—All indexes adjusted for seasonal variation except "Cost of Living."

Statistics used in the above table have now been revised to include the recent revisions in Bureau of Labor Statistics employment and pay roll data and in the Department of Commerce income estimates. Those desiring tables containing the revisions may secure them by request.

General Trend of Prices and Wages

[1910-14=100]

Year and month	Whole-sale prices of all commodities ¹	Industrial wages ²	Prices paid by farmers for commodities used in ³ —			Farm wages	Taxes ⁴
			Living	Production	Living and production		
1920.....	225	222	222	174	201	239	209
1921.....	142	203	161	141	152	150	223
1922.....	141	197	156	139	149	146	224
1923.....	147	214	160	141	152	166	228
1924.....	143	218	159	143	152	166	228
1925.....	151	223	164	147	157	168	232
1926.....	146	229	162	146	155	171	232
1927.....	139	231	159	145	153	170	238
1928.....	141	232	160	148	155	169	239
1929.....	139	236	158	147	153	170	241
1930.....	126	227	148	140	145	152	238
1931.....	107	208	126	122	124	116	217
1932.....	95	179	108	107	107	86	188
1933.....	96	172	109	108	109	80	161
1934.....	109	183	122	125	123	90	153
1935.....	117	192	124	126	125	98	155
1936.....	118	200	122	126	124	107	156
1937.....	126	215	128	135	130	120	-----
September.....	128	216	129	132	130	-----	-----
October.....	125	214	-----	-----	128	126	-----
November.....	122	206	-----	-----	127	-----	-----
December.....	119	208	126	127	126	-----	-----
1938—January.....	118	204	-----	-----	126	111	-----
February.....	116	208	-----	-----	126	-----	-----
March.....	116	208	123	128	125	-----	-----
April.....	115	204	-----	-----	125	115	-----
May.....	114	201	-----	-----	125	-----	-----
June.....	114	202	122	126	124	-----	-----
July.....	115	205	-----	-----	⁵ 123	120	-----
August.....	114	209	-----	-----	⁵ 122	-----	-----
September.....	114	214	121	122	121	-----	-----

Year and month	Index of prices received by farmers [August 1909–July 1914=100]								Ratio of prices received to prices paid
	Grains	Cotton and cottonseed	Fruits	Truck crops	Meat animals	Dairy products	Chickens and eggs	All groups	
1920.....	232	248	191	-----	174	198	223	211	195
1921.....	112	101	157	-----	109	156	162	125	82
1922.....	106	156	174	-----	114	143	141	132	89
1923.....	113	216	137	-----	107	159	146	142	93
1924.....	129	212	125	150	110	149	149	143	94
1925.....	157	177	172	153	140	153	163	156	99
1926.....	131	122	138	143	147	152	159	145	94
1927.....	128	128	144	121	140	155	144	139	91
1928.....	130	152	176	159	151	158	153	149	96
1929.....	120	144	141	149	156	157	162	146	95
1930.....	100	102	162	140	133	137	129	126	87
1931.....	63	63	98	117	92	108	100	87	70
1932.....	44	47	82	102	63	83	82	65	61
1933.....	62	64	74	105	60	82	75	70	64
1934.....	93	99	100	103	68	95	89	90	73
1935.....	103	101	91	125	118	108	117	108	86
1936.....	108	100	100	111	121	119	115	114	92
1937.....	126	95	122	123	132	124	111	121	93
October.....	93	67	99	130	136	128	127	112	88
November.....	85	65	88	124	120	132	135	107	84
December.....	86	64	76	112	111	136	127	104	83
1938—January.....	91	66	70	101	110	128	113	102	81
February.....	89	68	68	121	110	121	94	97	77
March.....	85	70	69	107	117	117	93	96	77
April.....	82	71	68	117	114	110	93	94	75
May.....	79	71	77	99	111	103	98	92	74
June.....	77	68	73	99	116	98	99	92	74
July.....	72	71	79	115	123	101	103	95	77
August.....	62	69	78	91	115	102	105	92	75
September.....	63	69	75	98	117	104	118	95	79
October.....	60	72	70	108	111	107	124	95	⁶ 79

¹ Bureau of Labor Statistics Index with 1926=100, divided by its 1910-14 average of 68.5.

² Average weekly earnings, New York State factories. June 1914=100. Revised.

³ These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

⁴ Index of farm real estate taxes, per acre, 1913=100.

⁵ Preliminary.